

Screening Worksheet for Determining Infiltration and/or Harvesting and Use Feasibility for Compliance with C.3 Treatment Requirements

*Complete this form to determine if Infiltration and/or Rainwater Harvesting and Use are feasible or infeasible Low Impact Development (LID) treatment measures for your C.3 Regulated Project. * See the [Glossary \(Attachment 1\)](#) for definitions of terms marked with an asterisk (*). Contact the Planning Project Manager to determine if the project is smart growth development that meets Special Project* criteria included in the Municipal Regional Permit. If the project meets Special Project criteria, it may receive LID treatment reduction credits.*

APPLICATION INFORMATION

1. Contact Information

Contact Person Name: _____ Project Name: _____
 Site Address: _____ APN: _____ File No.: _____
 Phone No.: _____ E-Mail: _____
 Mailing Address: _____

INFILTRATION FEASIBILITY ANALYSIS

2. Evaluate the Feasibility for Infiltration

Do site soils either (a) have a saturated hydraulic conductivity* (Ksat) that will NOT allow infiltration of 80% of the annual runoff (that is, the Ksat is LESS than 1.6 inches/hour), or, if the Ksat rate is not available, (b) consist of Type C or D soils?¹

- ☐ Yes – Infiltration is infeasible. Continue to Section 3.
- ☐ No – Infiltration might be feasible. Complete the [Infiltration Feasibility Worksheet](#) and Continue to Section 6.

RECYCLED WATER USE

3. Recycled Water Use

Check one of the boxes below to indicate if the project is installing and using a recycled water plumbing system for non-potable water use.

- ☐ Yes – The project is installing a recycled water plumbing system, and the installation of a second non-potable water system for harvested rainwater is impractical, and considered infeasible due to cost considerations. Continue to Section 6.
- ☐ No – The project is not installing a recycled water plumbing system. Continue to Section 4.

RAINWATER CAPTURE ANALYSIS

4. Calculate the Potential Rainwater Capture Area* for Screening of Potential Rainwater Harvesting and Use

*Complete this section for the entire project area. Note: If rainwater harvesting and use is infeasible for the entire site, **and** the project includes one or more buildings that each have an individual roof area of 10,000 sq. ft. or more, then it will be necessary to complete Sections 4 and 5 of this form for each of these buildings (after completing the 'entire project area' analysis).*

¹ Base this response on the site-specific soil report. If this is not available, consult the soil hydraulic conductivity map in [Attachment 3](#).

*For definitions, see [Glossary \(Attachment 1\)](#).

4.1 Complete Table 1. This table represents the **entire project area**.

Table 1: Calculation of the Potential Rainwater Capture Area* <i>The Potential Rainwater Capture Area may consist of the entire project area.</i>				
	1	2	3	4
	Pre-Project Total Site Existing Impervious Surfaces ² (sq. ft.)	Proposed Impervious Surfaces ² (IS) of Site Area Disturbed (sq. ft.)		Post-Project Landscaped Areas for Site Area Disturbed (sq. ft.)
		Replaced ³ IS	New ⁴ IS	
a. Enter the totals for the area to be evaluated:				
b. Sum of replaced and new impervious surfaces:	N/A			N/A
c. Area of existing impervious surfaces that will NOT be replaced by the project:		N/A		N/A

4.2 Answer this question for the entire project area **ONLY**. If existing impervious surface will be replaced by the project, does the area to be replaced equal 50% or more of the total existing impervious surface? (*Refer to Table 1, Row "a". Is the area in Column 2 > 50% of Column 1?*)

- ☐ Yes – C.3 stormwater treatment requirements apply to areas of impervious surface that will remain in place as well as the area created and/or replaced.
- ☐ No – C.3 requirements apply only to the impervious area created and/or replaced because the project **does not** include alteration of more than 50% of the total existing impervious surfaces.

4.3 Enter the square footage of the Potential Rainwater Capture Area*. If you answered "no" to Question 4.2, this amount is from Row "b" in Table 1. If you answered "yes" to Question 4.2, this amount is the sum of Rows "b" and "c" in Table 1: _____ sq. ft.

4.4 Convert the measurement of the Potential Rainwater Capture Area* from square feet to acres (divide the amount in Item 4.3 by 43,560): _____ acres.

4.5 Does the project have at least one **building roof area of 10,000 square feet** or more? If so, **complete Table 2 and Items 4.6 and 4.7 below** (if not, continue to Item 5). Attach additional tables for each additional individual building roof area of 10,000 sq. ft. or more, as applicable.

Table 2: Calculation of the Potential Rainwater Capture Area* <i>The Potential Rainwater Capture Area may consist of a building(s) with a roof area(s) of 10,000 sq. ft. or more.</i>				
	1	2	3	4
	Pre-Project Total Site Existing Impervious Surfaces ⁵ (sq. ft.)	Proposed Impervious Surfaces ² (IS) of the Building Roof Area (sq. ft.)		Post-Project Landscaped Areas for Site Area Disturbed (sq. ft.)
		Replaced ³ IS	New ⁴ IS	
a. Enter the totals for the area to be evaluated:	N/A			
b. Sum of replaced and new impervious surfaces:	N/A			N/A
c. Area of existing impervious surfaces that will NOT be replaced by the project:	N/A	N/A		N/A

4.6 Enter the square footage of the Potential Rainwater Capture Area* from Row "b" in Table 2: _____ sq. ft.

4.7 Convert the measurement of the Potential Rainwater Capture Area* from square feet to acres (divide the amount in Item 4.6 by 43,560): _____ acres.

² Enter the total of all impervious surfaces, including the building footprint, driveway(s), patio(s), impervious deck(s), unroofed porch(es), uncovered parking lot (including top deck of parking structure), impervious trails, miscellaneous paving or structures, and off-lot impervious surface (new, contiguous impervious surface created from road projects, including sidewalks and/or bike lanes built as part of new street). Impervious surfaces do NOT include vegetated roofs or pervious pavement that stores and infiltrates rainfall at a rate equal to immediately surrounding, unpaved landscaped areas, or that stores and infiltrates the C.3.d amount of runoff*.

³ "Replaced" means that the project will install impervious surface where existing impervious surface is removed.

⁴ "New" means the project will install impervious surface where there is currently no impervious surface.

⁵ Enter the total of the building's roof area. Impervious surfaces do NOT include appropriately-designed vegetated roofs.

*For definitions, see [Glossary \(Attachment 1\)](#).

RAINWATER HARVESTING AND USE FOR LANDSCAPE IRRIGATION FEASIBILITY ANALYSIS

5. Evaluate the Feasibility for Rainwater Harvesting and Use

5.1 Is the onsite Post-Project Landscaping Area (refer to the number in Column 4 of Table 1 if evaluating for entire site area, **or** the number in Column 4 of Table 2 if evaluating for an individual roof area) LESS than 2.5 times the size of the Potential Rainwater Capture Area* (refer to the number in Section 4.3 if evaluating for entire site area, **or** the number in Section 4.6 if evaluating for an individual roof area)? (Note: landscape area(s) have to be contiguous and within the same Drainage Management Area to use harvested rainwater for irrigation via gravity flow.)

- ☐ Yes – Harvesting and Use for landscape irrigation is infeasible. Continue to Section 5.2.
- ☐ No – Harvesting and Use for landscape irrigation might be feasible. Direct runoff from impervious areas to self-retaining areas* OR refer to Table 11 on page 33 and the curves in Appendix F of the [BASMAA Feasibility Criteria Report](#) to evaluate feasibility of harvesting and using the C.3.d amount of runoff for irrigation.

RAINWATER HARVESTING AND USE FOR TOILET FLUSHING OR NON-POTABLE INDUSTRIAL USES FEASIBILITY ANALYSIS

5.2 Depending on the type for project you are evaluating, complete the appropriate Subsection(s) below (5.2.a through 5.2.e) to determine if harvested rainwater can be used for toilet flushing or non-potable industrial uses:

a. Residential Projects: Proposed number of dwelling units: _____

Calculate the dwelling units per impervious acre by dividing the number of dwelling units by the acres of the Potential Rainwater Capture Area* in Item 4.4 (if evaluating the entire project area) or in Item 4.7 (if evaluating the roof area of a building).

When evaluating the entire project area, enter the result here: _____

When evaluating the roof area of a building, enter the result here: _____

Is the number of dwelling units per impervious acre LESS than 120 (assumes 2.34 occupants/unit⁶)?

- ☐ Yes – Harvest and Use is infeasible. Continue to Section 6.
- ☐ No – Harvest and Use might be feasible. Complete the [Rainwater Harvesting and Use Feasibility Worksheet](#).

b. Commercial/Industrial Projects: Proposed interior floor area: _____ sq. ft.

Calculate the proposed interior floor area (sq. ft.) per acre of impervious surface by dividing the interior floor area (sq. ft.) by the acres of the Potential Rainwater Capture Area* in Item 4.4 (if evaluating the entire project area) or in Item 4.7 (if evaluating the roof area of a building).

When evaluating the entire project area, enter the result here: _____

When evaluating the roof area of a building, enter the result here: _____

Does square footage of the interior floor space per impervious acre equal LESS than 70,000?

- ☐ Yes – Harvest and Use is infeasible. Continue to Section 6.
- ☐ No – Harvest and Use might be feasible. Complete the [Rainwater Harvesting and Use Feasibility Worksheet](#).

c. School Projects: Proposed interior floor area: _____ sq. ft.

Calculate the proposed interior floor area per acre of impervious surface by dividing the interior floor area (sq. ft.) by the acres of the Potential Rainwater Capture Area* in Item 4.4 (if evaluating the entire project area) or in Item 4.7 (if evaluating the roof area of a building).

When evaluating the entire project area, enter the result here: _____

When evaluating the roof area of a building, enter the result here: _____

Does square footage of the interior floor space per impervious acre equal LESS than 21,000?

- ☐ Yes – Harvest and Use is infeasible. Continue to Section 6.
- ☐ No – Harvest and Use might be feasible. Complete the [Rainwater Harvesting and Use Feasibility Worksheet](#).

⁶ Source: U.S. Census Bureau, 2006-2010 American Community Survey.

*For definitions, see [Glossary \(Attachment 1\)](#).

d. Mixed Commercial and Residential Use Projects:

- Evaluate the residential toilet flushing demand based on the dwelling units per impervious acre for the residential portion of the project, following the instructions in Item 5.2.a, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to residential use.
- Evaluate the commercial toilet flushing demand per impervious acre for the commercial portion of the project, following the instructions in Item 5.2.b, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to commercial use.

e. Industrial Projects: Estimated non-potable water demand (gallons/day): _____

Is the non-potable demand LESS than 2,400 gallons/day per acre of the Potential Rainwater Capture Area?

- ☐ Yes – Harvest and Use is infeasible. Continue to Section 6.
- ☐ No – Harvest and Use might be feasible. Refer to the curves in Appendix F of the [BASMAA Feasibility Criteria Report](#) to evaluate feasibility of harvesting and using the C.3.d amount of runoff for industrial use.

BIOTREATMENT DETERMINATION

6. Complete Sections 6.1 through 6.4 below to determine if Biotreatment facilities can be used to comply with C.3 treatment requirements

6.1 Were all the “Yes” boxes in Section 2: Feasibility for Infiltration checked?

- ☐ Yes – Continue to Section 6.2.
- ☐ No – Complete the [Infiltration Feasibility Worksheet](#).

6.2 Were all the “Yes” boxes in Section 3: Recycled Water Use checked?

- ☐ Yes – Continue to Section 7.
- ☐ No – Complete to Section 6.3.

6.3 Were all the “Yes” boxes in Section 5: Feasibility for Rainwater Harvesting and Use checked?

- ☐ Yes – Continue to Section 6.4.
- ☐ No – Complete the [Rainwater Harvesting and Use Feasibility Worksheet](#).

6.4 If only “Yes” boxes were checked for questions 6.1 through 6.3 above, then the applicant may use appropriately designed **biotreatment facilities** for compliance with C.3 treatment requirements. The applicant is encouraged to maximize infiltration of stormwater as site conditions allow.

SUMMARY RESULTS OF THE ENTIRE SCREENING WORKSHEET ANALYSIS

7. Based on this screening worksheet, the following steps will be taken (check all that apply)

- ☐ Infiltration and/or Harvest and Use are infeasible. Appropriately-designed biotreatment measures will be used to comply with C.3 treatment requirements.
- ☐ Infiltration might be feasible. Applicant will conduct further analysis of infiltration feasibility by completing the Infiltration Feasibility Worksheet.
- ☐ Harvest and Use might be feasible. Applicant will conduct further analysis of rainwater harvesting and use by (check one):
 - ☐ Completing the Rainwater Harvesting and Use Feasibility Worksheet for:
 - ☐ The entire project area.
 - ☐ Individual building(s) with a roof area(s) of 10,000 sq. ft. or more, if applicable, describe: _____
 - ☐ Evaluating the feasibility of harvesting and using the C.3.d amount of runoff for irrigation, based on Table 11 (on page 33) and the curves in Appendix F of the BASMAA LID Feasibility Criteria Report.
 - ☐ Evaluating the feasibility of harvesting and using the C.3.d amount of runoff for non-potable industrial use, based on the curves in Appendix F of the BASMAA LID Feasibility Criteria Report.

*For definitions, see [Glossary \(Attachment 1\)](#).